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Contesting the heavens: US antipreneurship and the regulation of space weapons

Adam Bower[1]* and Jeffrey S. Lantis[2]

[1]School of International Relations, University of St Andrews, St Andrews, Fife, Scotland, United Kingdom and [2]Department of Political Science, The College of Wooster, Wooster, OH, United States
*Corresponding author. Email : asb20@st-andrews.ac.uk

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Abstract

The 1967 Outer Space Treaty reserved outer space for 'peaceful purposes', yet recent decades have witnessed growing competition and calls for new multilateral rules including a proposed ban on the deployment of weapons in space. These diplomatic initiatives have stalled in the face of concerted opposition from the United States. To explain this outcome, we characterise US diplomacy as a form of 'antipreneurship', a type of strategic norm-focused competition designed to preserve the prevailing normative status quo in the face of entrepreneurial efforts. We substantially refine and extend existing accounts of antipreneurship by theorising three dominant forms of antipreneurial agency – rhetorical, procedural, and behavioural – and describing the mechanisms and scope conditions though which they operate. We then trace the development of US resistance to proposed restraints on space weapons from 2000–present. Drawing on hundreds of official documents, we show how successive US administrations have employed a range of interlayered diplomatic strategies and tactics to preserve the permissive international legal framework governing outer space and protect US national security priorities. Our study illustrates the specific techniques and impacts of resistance in a domain of growing strategic importance, with implications for further refining understandings of norm competition in other issue areas.

Keywords: Antipreneurship; Norms; Outer Space; Space Security; Space Weapons; United States

Introduction

The international community is at a major inflection point in the use and governance of outer space.[1] Satellites launched by governments and private companies are increasingly critical enablers of modern information-centric societies, facilitating both myriad civilian applications and security missions including nuclear command and control, missile early warning, intelligence and reconnaissance, secure communications, navigation, and targeting precision strike munitions. In recognition of their importance and inherent vulnerability, major space powers have created or expanded national military space organisations and are developing a range of offensive and

[1]There are currently over 5,465 operational satellites orbiting Earth – a threefold increase in just the past five years – along with approximately 31,000 trackable pieces of debris as well as an estimated 130 million untracked pieces of debris larger than 1 mm that threaten operational satellites including the International Space Station and China's Tiangong Space Station. Union of Concerned Scientists, 'UCS Satellite Database' (1 May 2022), available at: {https://www.ucsusa.org/resources/satellite-database}; European Space Agency, 'Space Debris by the Numbers' (4 April 2022), available at: {https://www.esa.int/Safety_Security/Space_Debris/Space_debris_by_the_numbers}.

defensive counterspace capabilities.[2] In this light, there is growing concern that geopolitical tensions may extend armed conflict into space, risking the destruction of valuable satellites and the creation of debris that would further imperil the safety and sustainability of Earth orbit.[3]

These challenges have generated widespread calls for additional restraints on the stationing and use of weapons in, through, and from outer (Earth orbital) space. The Prevention of an Arms Race in Outer Space (PAROS) has been a standing agenda item in the United Nations General Assembly (UNGA) since 1981 and receives near-universal support in an annual UNGA resolution.[4] Since the early 2000s, China and Russia have advanced a series of proposals to ban the placement of weapons in outer space, culminating in a draft Treaty on Prevention of the Placement of Weapons in Outer Space (PPWT) in 2008 and revised text in 2014. Yet despite widespread support especially from Global South states, this initiative has failed to advance to formal negotiations, owing in substantial part to concerted opposition from the United States as the leading space power.

This study answers several interwoven questions and puzzles related to the apparent failures of space security governance. First, why has there been surprisingly little progress in norm evolution or expansion in this domain, despite major innovations and growing concern for the sustainability of Earth orbit? Second, how has the US – as the world's preeminent spacefaring nation with vast military, economic, and diplomatic resources to defend its interests – prevented the development of a major diplomatic initiative promoted by other powerful states? These questions also set the foundation for future research on the motivations behind why great powers would engage in diplomacy that could result in new norms that might constrain their behaviour, instead of simply ignoring inconvenient proposals.

We argue that answers to these questions can be found in identifying US diplomacy as an archetypal example of 'antipreneurship', a form of strategic and defensive norm competition designed to resist changes to the normative status quo in the face of entrepreneurial efforts. Our research makes two primary contributions to the study of norm dynamics generally and space security governance specifically. First, we substantially refine and extend the promising but underdeveloped conceptualisation of antipreneurship as a distinctive form of agency in International Relations (IR) scholarship. Bloomfield's initial discussion of antipreneurship emphasised broad positional roles but said little about the specific means through which actors pursue their objectives.[5] To rectify this gap, we attend to the *processes* of strategic social action by theorising three dominant forms of antipreneurial agency – rhetorical, procedural, and behavioural – and describing the mechanisms and scope conditions though which they operate. In doing so, we distinguish our account from prominent alternative explanations of norm contestation (in which actors seek to question, modify, or replace norms) and realist power politics (in which powerful states largely avoid inconvenient international restraints). In short, our study charts a third way between transformation and ambivalence: antipreneurship is a form of deliberate engagement within institutions designed to preserve the status quo.

Second, the article employs our antipreneurship framework to trace the development and impact of US resistance to proposed restraints on space weapons. Focusing on US agency provides an important window into a broader process of international norm competition that has pitted principally non-Western states (led by China and Russia) who have sought a legally binding but narrow ban on some anti-satellite weapons against the US (the most prominent antipreneurial

[2]Brian Weeden and Victoria Samson, 'Global Counterspace Capabilities: An Open Source Assessment' (Washington, DC: Secure World Foundation, April 2022), available at: {https://swfound.org/media/207350/swf_global_counterspace_capabilities_2022_rev2.pdf}.

[3]Benjamin Silverstein, Daniel Porras, and John Borrie, 'Alternative Approaches and Indicators for the Prevention of an Arms Race in Outer Space', Space Dossier 5 (Geneva: United Nations Institute for Disarmament Research, May 2020), available at: {https://unidir.org/publication/alternative-approaches-and-indicators-prevention-arms-race-outer-space}.

[4]United Nations General Assembly, 'Further Practical Measures for the Prevention of an Arms Race in Outer Space', Resolution A/RES/76/230 (24 December 2021), available at: {https://research.un.org/en/docs/ga/quick/regular/76}.

[5]Alan Bloomfield, 'Norm antipreneurs and theorising resistance to normative change', *Review of International Studies*, 42:2 (2016), pp. 310–33.

agent) and its allies who instead first resisted space arms control but more recently have endorsed the gradual expansion of voluntary norms centred around a conception of responsible conduct.[6] Through a detailed historical study, we show that successive US administrations have employed a range of interlayered diplomatic techniques in a systematic effort to preserve the largely permissive international legal framework governing outer space and thereby protect US freedom of action as a foundational security priority. Most fundamentally, this diplomatic contest has served as a proxy for disputes over the nature and scale of US ballistic missile defence (BMD) capabilities. Chinese and Russian officials fear a return of Cold War era US plans for space-based ballistic missile interceptors and therefore prioritised legal prohibitions on the placement of weapons *in space*. By contrast, the US has perceived the Chinese-Russian initiatives as an attempt to constrain BMD systems (even as there are no public plans for space-based interceptors). As the state most reliant on space technologies to enable its military and economic advantages, the US has instead focused attention on near-term threats to satellites emanating *from Earth*.[7]

In this respect, US space policy and antipreneurship fits within a broader 'American way of war' based on technological dominance and a corresponding scepticism concerning limitations on discrete military technologies in favour of more generally applicable restraints on behaviours found *inter alia* in the law of armed conflict.[8] We illustrate the specific techniques of resistance in a domain of growing strategic importance. To do so, we draw on hundreds of official policy documents and statements in diplomatic fora covering the period 2000–present to analyse the positions advanced by the leading norm entrepreneurs of China and Russia and subsequent US responses during critical moments of international debates on space governance.

The results of our study illustrate the strategic nature of antipreneurship and adaptation and belie superficial perceptions of great power aloofness. We find that core aspects of US opposition have remained largely constant over time despite transformations in geopolitical context, technology, and domestic political ideology. At the same time, successive administrations have favoured different tactics that reflect their varied perceived interests, opportunities and constraints, and diplomatic styles. These findings provide theoretical and empirical insights that can stimulate further comparative studies of norm competition strategies by the US and other actors across diverse issue areas.[9]

Norm entrepreneurship and antipreneurship

Theories of international norms have evolved significantly in recent decades. Early influential accounts – notably the norm life-cycle model – emphasised the agency of actors in promoting new norms.[10] While capturing important dynamics, these models have also been critiqued for analytically privileging progressive liberal causes, assuming a largely unidirectional expansion of norms (ignoring the prospects for reversal or stalemate), and lacking an appreciation for the extent

[6]This article does not offer a normative judgement on the legitimacy of arms control initiatives or US critiques, but rather illustrate how a prominent actor utilised distinctive techniques to successfully block the consolidation of a new norm.

[7]Paul Meyer, 'Ballistic Missile Defence and Outer Space Security: A Strategic Interdependence', Space Dossier 6 (Geneva: United Nations Institute for Disarmament Research, 29 June 2020), p. 15, available at: {https://www.unidir.org/publication/space-dossier-file-6-ballistic-missile-defence-and-outer-space-security-strategic}; Jessica West and Lauren Vyse, 'Arms Control in Outer Space: Status, Timeline, and Analysis' (Waterloo, ON: Project Ploughshares, March 2022), p. 16, available at: {https://ploughshares.ca/pl_publications/arms-control-in-outer-space-status-timeline-and-analysis/}.

[8]Theresa Hitchens, 'Exclusive: In A First, SecDef Pledges DoD To Space Norms', Breaking Defense (19 July 2021), available at: {https://breakingdefense.sites.breakingmedia.com/2021/07/exclusive-in-a-first-secdef-pledges-dod-to-space-norms/}; Joan Johnson-Freese, *Heavenly Ambitions: America's Quest to Dominate Space* (Philadelphia, PA: University of Pennsylvania Press, 2009). Generally, see Stephanie Carvin and Michael John Williams, *Law, Science, Liberalism and the American Way of Warfare: The Quest for Humanity in Conflict* (Cambridge, UK: Cambridge University Press, 2014).

[9]We thank Jason Ralph for this suggestion.

[10]Martha Finnemore and Kathryn Sikkink, 'International norm dynamics and political change', *International Organization*, 52:4 (1998), pp. 887–917.

of dispute over even purportedly dominant norms.[11] In response, norms scholars have begun to explicitly conceptualise international politics as a competitive ideational marketplace in which rival actors – which may include states, advocacy coalitions, commercial entities, or individuals – jockey to define social structures by advancing their preferred norms in place of alternatives. Much recent attention has thus been paid to the variable levels of norm diffusion and internalisation driven by complex forms of engagement, interpretation, and contestation.[12]

While hugely productive, these various research strands still tend to emphasise sources of *change* and downplay efforts to preserve established institutional expressions of norms. Alan Bloomfield offered a preliminary attempt to redress this imbalance by advancing the concept of norm 'antipreneurs' who, as the mirror image of norm entrepreneurs, 'defend the entrenched normative status quo against challengers'.[13] Antipreneurs therefore privilege stability and – at most – favour modest and incremental adjustments over rapid and substantive innovations to existing social structures. A central insight here was that, while much attention is given to entrepreneurial agency, antipreneurs also enjoy defensive advantages derived from a combination of individual and collective aversion to novelty and sclerotic decision-making processes in diplomatic institutions.[14] These antipreneurial efforts are not uniform, but rather are the product of deliberate, calculated responses to contextual conditions. Bloomfield thus identified a spectrum of roles from 'pure norm entrepreneurs' to 'pure norm antipreneurs', with gradients in between that speak to progressively different intentions and behaviours.[15]

While this preliminary model of antipreneurship provided a useful addition to our conceptual toolkit, it did not significantly advance a detailed theory of agency. At its core, the model assumed that norm development requires entrepreneurs, and there would logically be actors who opposed their plans. Meanwhile, questions like exactly who these antipreneurs are, why and how they engage, and their preferred strategies and tactics for resistance were left open to broad interpretation. Indeed, Bloomfield's initial article prioritised laying the conceptual groundwork and focused the identification of ideal-typical roles over detailed examination of specific forms of action.[16] Most fundamentally, while Bloomfield and his co-authors were careful to position antipreneurship within the contemporary constructivist research tradition, they did not articulate the theoretical first principles concerning the social basis of strategic action, nor did they fully grapple with the significance of asymmetrical power between actors or the enabling conditions of varying institutional settings. As a result, subsequent theoretical development and applications of antipreneurship have been quite limited.

Theorising norm antipreneurship as process

To address these gaps, our intervention shifts the focus from generic roles to the *processes* through which antipreneurship is enacted and thereby foregrounds the theoretical assumptions

[11]Clifford Bob, *The Global Right Wing and the Clash of World Politics* (New York, NY: Cambridge University Press, 2012).

[12]Important examples include Antje Wiener, *Contestation and Constitution of Norms in Global International Relations* (New York, NY: Cambridge University Press, 2018); Nicole Deitelhoff and Lisbeth Zimmermann, 'Things we lost in the fire: How different types of contestation affect the robustness of international norms', *International Studies Review*, 22:1 (2020), pp. 51–76. Two recent special issues in *International Affairs* (2019) and *Journal of Global Security Studies* (2019) examine contestation from varied conceptual and empirical perspectives.

[13]Bloomfield, 'Norm antipreneurs', p. 321. These ideas are further developed in Alan Bloomfield and Shirley V. Scott (eds), *Norm Antipreneurs and the Politics of Resistance to Global Normative Change* (London, UK: Routledge, 2016); Kurt Mills and Alan Bloomfield, 'African resistance to the International Criminal Court: Halting the advance of the anti-impunity norm', *Review of International Studies*, 44:1 (2018), pp. 101–27.

[14]Bloomfield, 'Norm antipreneurs', p. 323; Mills and Bloomfield, 'African resistance', p. 103.

[15]Bloomfield, 'Norm antipreneurs', pp. 329–31. A slightly different typology is provided in Shirley V. Scott and Alan Bloomfield, 'Norm entrepreneurs and antipreneurs: Chalk and cheese, or two faces of the same coin?', in Bloomfield and Scott (eds), *Norm Antipreneurs and the Politics of Resistance to Global Normative Change*, pp. 231–5.

[16]Bloomfield, 'Norm antipreneurs', pp. 311–12. Bloomfield's 2016 article does introduce some tentative characterisations of antipreneurial tactics, but these are not developed systematically. Ibid., pp. 323–6.

and mechanisms upon which antipreneurial agency is based. We advance a modified theory of norm antipreneurship that identifies three prominent strategies – rhetorical, procedural, and behavioural – practiced by actors attempting to both remain engaged in diplomacy and yet uphold the status quo of norm meanings-in-use. Here, antipreneurship is understood as a distinctive type of norm-focused competition, in which actors deploy discourses and behaviours – they speak and act – in an attempt to *preserve* existing norms and institutional forms that reflect their interests by *blocking* efforts to modify or replace these standards. However, our account is normatively neutral in the sense that we do not render judgement on the intention or legitimacy of competing norms – as being 'progressive' versus 'regressive' or 'good' versus 'bad' – or assign positive or negative attributes to actors engaged in entrepreneurial or antipreneurial efforts.[17] Rather, we are interested in the techniques that actors employ to resist (from their perspective) unwanted change. But while antipreneurship seeks to prevent innovation, it is not passive: the status quo must be constantly sustained against efforts at entrepreneurship or contestation.[18]

The theoretical move advanced here consciously bridges the ontological divide in contestation theory by acknowledging the value of combining insights from constructivist and rationalist logics of action. We are specifically interested in norm competition between states – governments and their relevant agencies – rather than broader publics. At its core, strategic social action involves the self-interested pursuit of pre-existing objectives, but via the invocation of collective values that presume some basic intersubjective agreement regarding the normative context.

Drawing on the rich constructivist IR literature, we contend that international law provides the critical ideational and institutional context through which actors can seek to advance *and* resist new social standards.[19] First, from this perspective international law is characterised not merely as a set of discrete binding rules but more deeply represents a constitutive form of meaning-making. Scott has argued that law serves a particularly authoritative discursive form for expressing and interrogating norms owing to a widespread (though problematic) perception of legal reasoning as more neutral and technocratic than political, moral, or economic motivations and the way in which legal discourses are recurringly embedded in the development, perpetuation, and transformation of international institutions.[20] In short, international law provides a dominant vocabulary and grammar for justifying and evaluating actions in contemporary global politics.[21] Legalisation is not an end-point but a process defined by distinctive forms of argumentation and interpretation that are bound up in intersubjectively agreed practices and institutional forms.[22] We therefore expect that actors trying to change or preserve the status quo will draw on the legalistic frames, discursive scripts, and procedures that structure modern diplomacy.

[17]Important studies that foreground the normative dimensions of norm entrepreneurship and contestation include: Gregorio Bettiza and David Lewis, 'Authoritarian powers and norm contestation in the liberal international order: Theorizing the power politics of ideas and identity', *Journal of Global Security Studies*, 5:4 (2020), pp. 559–77; Anna Holzscheiter, Sassan Gholiagha, and Andrea Liese, 'Advocacy coalition constellations and norm contestation: Insights from international drug control, human trafficking, and child labour', *Global Society*, 36:1 (2022), pp. 25–48; Clifford Bob, *Rights as Weapons: Instruments of Conflict, Tools of Power* (Princeton, NJ: Princeton University Press, 2019); Zoltán I. Búzás, 'Racism and antiracism in the liberal international order', *International Organization*, 75:2 (2021), pp. 440–63; Charlotte Epstein, 'Stop telling us how to behave: Socialization or infantilization?', *International Studies Perspectives*, 13:2 (2012), pp. 135–45; and Daniëlle Flonk, 'Emerging illiberal norms: Russia and China as promoters of Internet content control', *International Affairs*, 97:6 (2021), pp. 1925–44.

[18]We thank Naomi Egel for emphasising this point.

[19]Adam Bower, *Norms Without the Great Powers: International Law and Changing Social Standards in World Politics* (Oxford, UK: Oxford University Press, 2017); Ian Hurd, *How to Do Things with International Law* (Princeton, NJ: Princeton University Press, 2017); Christian Reus-Smit, 'Politics and international legal obligation', *European Journal of International Relations*, 9:4 (2003), pp. 591–625.

[20]Shirley V. Scott, 'International law as ideology: Theorizing the relationship between international law and international politics', *European Journal of International Law*, 5:3 (1994), pp. 313–25.

[21]Friedrich Kratochwil, *The Status of Law in World Society: Meditations on the Role and Rule of Law* (Cambridge, UK: Cambridge University Press, 2014), p. 1.

[22]Jutta Brunnée and Stephen J. Toope, *Legitimacy and Legality in International Law: An Interactional Account* (Cambridge, UK: Cambridge University Press, 2010).

Table 1. Antipreneurship strategies.

	Description	Tactics	Conditions
Rhetorical	Use of discourse to challenge proposed norm	Denial; substantive objections; framing battles; decoupling; ambiguity	Adherence to discursive constraints
Procedural	Leveraging diplomatic procedures to impede change	Membership; consensus; opposing forum shifts; decoupling; obstruction; withholding consent	Conservative institutional rules
Behavioural	Activities to undermine proposed norm	Defensive concessions; non-conformance	Transparency re. norms and behaviours

Second, and relatedly, institutionalisation influences norm competition in two key respects. On the one hand, the negotiation of explicit texts offers some (albeit imperfect) measure of clarity concerning underlying norms and thus where the distinction between entrepreneurs and antipreneurs is most apparent. On the other hand, diplomatic settings provide fora for intersubjective engagement defined by the legalised procedures and discourses described above.[23] Yet while in principle institutions can be exploited by entrepreneurs and antipreneurs alike, international institutions are often conservative by design and thus disproportionately favour those seeking to resist change. As we explore further below, institutional features that restrict decision-making – most especially by limiting membership and setting high conditions for agreement – provide 'strategic blocking opportunities' by which to defend the normative status quo.[24] All else equal, therefore, we should expect that antipreneurship is more likely to prevail in situations where the existing norm is embedded within dense institutional structures. This is certainly the case for space politics, and we expect that these dynamics will also be reflected in other issues areas.

Antipreneurship strategies and tactics

We identify three prominent strategies, along with more specific tactical applications, employed by actors to resist nascent norms and reinforce the prevailing normative status quo (Table 1).[25] In keeping with our conception of antipreneurship as strategic and intersubjective, we contend that antipreneurs deliberately deploy these resources in a calculated manner in response to external diplomatic conditions. Their use is modulated by either employing strategies and tactics independently or, more frequently, combining them to magnify the effects of resistance. Discrete actions typically do not end competition between norm entrepreneurs and antipreneurs but set the stage for further engagements; antipreneurship is thus iterative and recurs over time.

First, *rhetorical antipreneurship* involves the use of discursive claims as strategic rhetorical devices to assert the legitimacy of the status quo and challenge proposed normative innovations. Unlike models of 'applicatory' contestation where actors seek to generate debate over the meaning and limits of norms, rhetorical antipreneurship is intended to neutralise entrepreneurial efforts by disrupting deliberations that may lead to the consolidation of the rival norm.[26] In line with accounts of rhetorical action, this approach does not seek to improve the quality of information or change views – and thus does not succeed through the power of the better argument – but rather aims to deny interlocutors necessary political support for their alternative perspective.[27] Following our theoretical account, we contend that the discursive structures of international law and diplomacy

[23] Alastair Iain Johnston, 'Treating international institutions as social environments', *International Studies Quarterly*, 45:4 (2001), pp. 487–515.

[24] Bloomfield, 'Norm antipreneurs', pp. 323–5.

[25] These are idealised types and there is naturally some overlap between analytical categories.

[26] Bloomfield, 'Norm antipreneurs', p. 324.

[27] Ronald R. Krebs and Patrick Thaddeus Jackson, 'Twisting tongues and twisting arms: The power of political rhetoric', *European Journal of International Relations*, 13:1 (2007), pp. 35–66.

provide an enabling condition and constraint for rhetorical antipreneurship as potentially effective claims must adhere to the parameters of acceptable speech in international institutions – they must be 'diplomatic' in form – and offer at least broadly plausible substantive and/or normative characterisations.

The implementation of rhetorical antipreneurship encompasses more particular tactics manifest in discourse. Often the first resort for an antipreneur is to *deny the existence of the alleged threat or issue* that entrepreneurs claim necessitates a new normative response.[28] Here, antipreneurs engage in factual reasoning to dispute the empirical premises of an entrepreneurial effort. Denial is often insufficient in isolation and antipreneurs thus pivot to deploy specific *substantive objections* concerning the technical features or implications of the nascent norm, or even the motivations of its proponents. In doing so, antipreneurs can invert common strategies associated with norm entrepreneurship, for example by *rejecting the framing* of an issue advanced by entrepreneurs or working to sever the entrepreneurs' attempted linkages between the nascent norm and more established norms (*decoupling*). Alternatively, antipreneurs may intentionally decline to offer concrete suggestions that could be built on by those seeking more rapid change. In this sense, *ambiguity* can reflect a considered diplomatic choice instead of simply the absence of coherent purpose.

Antipreneurs may also employ *procedural antipreneurship* by leveraging diplomatic procedures and practices to block unwelcome initiatives. These efforts are best suited to settings where the institutional rules favour stasis over rapid innovation. Most obviously, antipreneurs can capitalise on existing institutional advantages that accrue through *restrictive membership rules* and/or *consensus decision-making* procedures that limit the range of participants and set a high threshold for agreement. Major powers including China, Russia, and the United States have long insisted that multilateral arms control and disarmament diplomacy take place in fora like the UN Conference on Disarmament that feature consensus voting and have opposed efforts – as with the negotiations over bans on antipersonnel mines, cluster munitions, and nuclear weapons – to utilise more inclusive venues with majoritarian voting rules. In such circumstances, antipreneurs will *oppose forum shifts* that might be introduced by entrepreneurs to seek out more permissive settings. This, in turn, reveals important interconnections between procedural and rhetorical antipreneurship tactics. For example, denying efforts at institutional innovation represents the procedural form of discursive *decoupling* noted above. Similarly, antipreneurs will frequently invoke diplomatic rules including objections and rights of reply to *obstruct* proceedings, alongside substantive claims. Finally, opposition can be further formalised through the *withholding of consent* by voting against, or simply refusing to affirmatively support, a diplomatic effort. This is an especially potent tactic in consensus bodies where all actors possess an effective veto.[29]

Antipreneurs can also undertake activities that are intended to implicitly or explicitly challenge the emerging alternative normative consensus before it can consolidate – what we call *behavioural antipreneurship* – on a spectrum from confrontational to more conciliatory forms. Most dramatically, an antipreneur may engage in overt *non-conformance*, pre-emptively undertaking actions that would violate the new norm, were it to become established. In cases where a nascent norm limits or prohibits a given activity, transgressions – such developing advanced technologies that are the subject of a proposed ban – serve to both convey opposition and create material conditions that make subsequent regulation harder.[30] By contrast, an antipreneur may instead offer *defensive concessions* designed to blunt or co-opt more ambitious initiatives for norm change. For example, in instances where entrepreneurs seek more restrictive prescriptive norms, an antipreneur may instead propose modest restraints – such as voluntary limits on their behaviour – that ostensibly address the

[28]Our distinction between denial and substantive objections reflects some dynamics found in Bloomfield's original two-step response model, though we specify the content and mechanisms. Bloomfield, 'Norm antipreneurs', p. 323.

[29]For example, Pakistan has blocked the adoption of a program of work in the Conference on Disarmament since the late 1990s.

[30]Inversely, the emergence of a permissive norm that tacitly or explicitly allows a wider range of behaviours would be opposed via restrictions on those same actions.

underlying problem identified by norm entrepreneurs. While such actions blur the conceptual line between antipreneurship and entrepreneurship, the intention remains to avert more substantive progress.[31]

Finally, as with procedural tactics, behavioural antipreneurship is typically fused with rhetorical expressions. While accounts of contestation often allow for forms of surreptitious resistance,[32] our conception requires public acknowledgement of an action since this is connected to the strategic attempt to impede an entrepreneurial process by denying intersubjective agreement over the new norm. Behavioural antipreneurship is thus most effective when there is relative clarity concerning the nature and implications of the status quo and emerging norms, and the actions of the antipreneur.

Alternative explanations

Antipreneurship represents a synthesis of rationalist and normative models of political action and thus shares assumptions with other theoretical accounts. Yet our theory is distinctive both in terms of actor intentions and observable implications. Most obviously, in its concern for norm-focused competition, antipreneurship is closely related to the concept of contestation in IR scholarship.[33] But while contestation involves expressions of dissatisfaction with prevailing norms and an intention to clarify, modify, or replace the dominant standard(s), antipreneurship aims to *prevent* such changes and instead defend the status quo against change. Relatedly, therefore, the strategic process is not directed towards changing minds (persuasion), reaching a mutually agreeable position (bargaining), or forcing concessions in interlocutors through argumentation (rhetorical action), but is instead deployed to spoil the desired initiatives of others.[34]

In addition, while antipreneurship appears compatible with a realist power politics model in which powerful states largely eschew restrictive institutional restraints and leverage institutions to pursue their pre-existing interests, our account differs in important respects.[35] While realists assume that states seek to maximise their power and are therefore reluctant to become enmeshed in institutional arrangements that do not immediately benefit them, our theory examines processes of strategic resistance within institutions and via the discourses and practices of international law and diplomacy. We therefore show how leading space powers actively participate in substantive dialogues about space governance and how their agency is shaped by diplomatic processes.

Finally, the most obvious evidence challenging our account would be if US officials endorsed an initiative from other actors (like the Chinese-Russian PPWT) or proposed their own norm(s) that explicitly sought to alter the prevailing normative status quo. As we note below, a case could be made that much more recent US support for voluntary transparency and confidence-building measures might represent a shift towards partial and tentative norm entrepreneurship. While this is plausible, we believe that this interpretation misunderstands the strategic context of US diplomacy, which is instead designed to limit the pace and scope of normative change in order to preserve existing US freedom of action in space.

[31]Bloomfield characterises this as a role change from 'pure entrepreneur' to a 'creative resister'. Bloomfield, 'Norm antipreneurs', p. 332.

[32]Anette Stimmer and Lea Wisken, 'The dynamics of dissent: When actions are louder than words', *International Affairs*, 95:3 (2019), pp. 515–33.

[33]Wiener, *Contestation and Constitution*; Deitelhoff and Zimmermann, 'Things we lost in the fire'.

[34]Thomas Risse, '"Let's argue!": Communicative action in world politics', *International Organization*, 54:1 (2000), pp. 1–39; Harald Müller, 'Arguing, bargaining and all that: Communicative action, rationalist theory and the logic of appropriateness in International Relations', *European Journal of International Relations*, 10:3 (2004), pp. 395–435; Krebs and Jackson, 'Twisting tongues'; Margarita H. Petrova, 'Rhetorical entrapment and normative enticement: How the United Kingdom turned from spoiler into champion of the cluster munition ban', *International Studies Quarterly*, 60:3 (2016), pp. 387–99.

[35]John J. Mearsheimer, 'The false promise of international institutions', *International Security*, 19:3 (1994), pp. 5–49. For a more nuanced perspective, see William C. Wohlforth, 'US leadership and the limits of international institutional change', *International Journal*, 67:2 (2012), pp. 415–21.

Research design

This study provides a systematic account of antipreneurial agency that is organised conceptually on the basis of theoretical processes drawn from a social ontology and constructivist IR theory. Our account is primarily designed to interpret and explain state practice rather than propose testable hypotheses and is guided by three key considerations. First, we identify the US as the principal antipreneur due to its outsized role in the empirical subject under examination.[36] The US was a primary driver in the development of core international space treaties and institutions and remains the leading space power with preeminent military, commercial, and civilian space capabilities that provide strategic advantages it seeks to maintain. As a result, it has long been the most vocal opponent of space arms control, viewing these initiatives as a means for competitors to constrain its military capabilities – especially ballistic missile defence – and erode US terrestrial and orbital dominance.[37]

Based on the common assumption that states with disproportionate military, economic, and diplomatic resources are best placed to advance and defend their interests, all else equal, we anticipate that the US is a likely candidate for successful antipreneurship. Indeed, while other Western allies – including Canada, France, and the United Kingdom – have also opposed prominent space arms control initiatives, the US has acted as the focal point for antipreneurial efforts. We focus attention on the period from 2000 to present which provides variation in US domestic politics (spanning four presidential administrations, both Democratic and Republican) and encompasses profound changes in the international political context, rapid expansion of spaceflight globally, and the most important international initiatives to regulate space weapons.

However, we do not claim that predominant material and social power is always determinative. For example, conservative decision rules in institutions can be exploited by any member to forestall diplomatic progress; hence some antipreneurship tactics are power agnostic. More broadly, the intersubjective foundations of norms mean that suitably motivated and cohesive groupings of less powerful actors can promote or prevent the emergence of new social standards.[38] In other words, the US possesses relative rather than absolute advantages. Hence, while our case study focuses on the US as a predominant global actor, we expect that the model of antipreneurship advanced here may apply much more broadly.

Second, we examine dynamics of norm entrepreneurship and antipreneurship within international institutions as the primary venues for norm competition. We study three key fora: (1) the UN Conference on Disarmament (CD, a consensus-based organisation charged with negotiating arms control and disarmament agreements); (2) the UN Committee on the Peaceful Use of Outer Space (COPUOS, a forum for discussions concerning political, legal, scientific, and technical dimensions of non-military space activities); and (3) the UN General Assembly (UNGA) First Committee (which deals with security and disarmament), Fourth Committee (whose mandate includes peaceful uses of space), and plenary, which operate on majority voting rules. To identify patterns of

[36]Our focus remains on the state in its overall configuration, and we do not delve into the specific individual and organisational agents in detail.

[37]Everett Carl Dolman, 'New frontiers, old realities', *Strategic Studies Quarterly*, 6:1 (2012), pp. 91–5; James Clay Moltz, *The Politics of Space Security: Strategic Restraint and the Pursuit of National Interests* (3rd edn, Stanford, CA: Stanford University Press, 2019); Steve Lambakis, 'Foreign Space Capabilities: Implications for U.S. National Security' (Fairfax, VA: National Institute for Public Policy, September 2017), pp. 74–6, available at: {https://nipp.org/monographs_cpt/in-foreign-space-capabilities-implications-for-u-s-national-security/}; Brad Townsend, *Security and Stability in the New Space Age: The Orbital Security Dilemma* (Abingdon, Oxon, UK: Routledge, 2020), pp. 42–86. Notions of space 'superiority' and 'dominance' are prominent in the scholarly and practitioner literature on US space power. See, for example, Everett C. Dolman, *Astropolitik: Classical Geopolitics in the Space Age* (London, UK: Routledge, 2001); Charles D. Lutes et al. (eds), *Toward a Theory of Spacepower: Selected Essays* (Washington, DC: National Defense University, 2011); Joint Chiefs of Staff, United States of America, 'Joint Publication 3-14: Space Operations' (Washington, DC: Department of Defense, 26 October 2020), p. I-4, available at: {https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_14ch1.pdf?ver=qmkgYPyKBvsIZyrnswSMCg%3D%3D}.

[38]Bower, *Norms Without the Great Powers*; Mills and Bloomfield, 'African resistance'.

continuity and change in antipreneurial agency, we analysed hundreds of government documents and official diplomatic statements from the US as well as the chief norm entrepreneurs of China and Russia. Data collection and analysis was conducted in two stages. We first identified all meetings in the three diplomatic fora from 2000–present where space weapons issues were discussed. We then read every US statement as well as key official documents and qualitatively coded the texts to categorise the substance of US policy interventions. This latter step was repeated for a subset of Chinese and Russian statements, along with all principal diplomatic proposals.

Third, in keeping with the theoretical account, we conceptualise antipreneurship as an interactive and iterative process that plays out over a series of distinct but connected diplomatic episodes. As we demonstrate, the volume and intensity of antipreneurship has tended to coalesce around 'defining moments' when events force political actors to engage in 'bursts of rich debate' over foreign policy behaviour.[39] Hence, within the broader portrayal of US antipreneurship we focus on three specific episodes that reveal the strategic deployment of overlapping strategies and tactics, and the impact of US resistance. The first concerns the US's initial rejection of the premises of renewed space arms control initiated by China and Russia in the early 2000s. The second highlights substantive US opposition to a joint Chinese-Russian draft treaty in 2008 (and revised text in 2014) and efforts to block consideration of this document in the Conference on Disarmament. The third traces the emergence of tentative US support for voluntary transparency and confidence-building measures as a means of redirecting diplomatic energies away from efforts to agree new legally binding rules on space weapons.

US antipreneurship in space security

Historical overview

US space policy offers an intriguing case in which to trace and evaluate processes of great power norm competition in global security governance. Most fundamentally, successive US administrations have consistently sought to preserve American freedom of action in outer space in line with their strategic approach to ensuring US security though technological pre-eminence.[40] In the early decades of the Space Age, the US played the role of norm entrepreneur and used its position as one of the two preeminent space powers to craft international principles and rules that restricted certain harmful behaviours but generally did not limit space exploration and operations.[41] In conjunction with the Soviet Union, it took a lead role in promoting a norm recognising the right of satellites to overfly national territories – as is required by orbital physics – without amounting to a violation of sovereignty. The US and its allies also successfully articulated an understanding that 'peaceful uses' of space permit 'non-aggressive' activities in support of terrestrial military and intelligence operations that do not target or interfere with other states' satellites.

This permissive approach is reflected in the core international treaties that govern outer space activities. The 1967 Outer Space Treaty (OST) serves as the foundation of international space law with the aim of 'maintaining international peace and security and promoting international co-operation and understanding'.[42] Importantly, Article III of the OST affirms that space activities will be undertaken 'in accordance with international law, including the Charter of the United Nations', which provides substantive and rhetorical linkages between more limited space law and general international law governing the use of armed force and self defence, among other topics. Yet the OST itself imposes only modest restraints on military operations in and through space: Article IV

[39]Richard Price, *The Chemical Weapons Taboo* (Ithaca, NY: Cornell University Press, 1997), p. 10.

[40]Johnson-Freese, *Heavenly Ambitions*.

[41]Moltz, *The Politics of Space Security*, pp. 69–175.

[42]United Nations General Assembly, 'Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies', 2222 (XXI) (1966), Art. III, available at: {https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/outerspacetreaty.html}.

bans the placement of weapons of mass destruction anywhere in space as well as military installations and all types of weapons on celestial objects (but not in the voids between these objects). As a result, existing international law does not explicitly prohibit the testing, deployment, or use of 'conventional' space weapons, whether from Earth or in orbit.[43]

During the Cold War, both the United States and Soviet Union pursued a range of anti-satellite (ASAT) technologies. Today, a limited but growing number of states are developing ground-based and space-based ASATs, including the main space powers of China, Russia, and the US, along with India and potentially others.[44] Thus far, these capabilities have never been used to destroy or permanently disable another state's satellite but testing of destructive ASAT systems has produced dangerous debris. Further, the United States has pursued space-based systems for intercepting intercontinental ballistic missiles and explored developing platforms to launch attacks from orbit against targets on Earth.[45]

In this context, there have been growing calls to extend international space law to further regulate or even prohibit the prospective introduction of weapons into the space environment.[46] The Prevention of an Arms Race in Outer Space (PAROS) has been a subject of discussion in the CD and UNGA since the early 1980s and an annual resolution on PAROS receives near-universal support each year.[47] After a period of relative inactivity, in the early 2000s China and Russia emerged as the key entrepreneurs by introducing a series of progressively more detailed proposals that sought to generate international support for a legally binding ban on the placement of weapons *in space* as well as the threat or use of force against space systems. These proposals have also received extensive support especially from Global South states.[48] While not the only state to express scepticism, the US has been the most persistent and vocal opponent of proposed restrictions on specific (ostensibly military) space technologies, which it has regarded as principally intended to constrain US capabilities.[49]

While national security policies are the product of many influences, we contend that proposals for outer space arms control have for the past two decades served primarily as a proxy for debating US plans for ballistic missile defence (BMD). Since the early 2000s, China and Russia have worried that renewed US efforts to develop expansive BMD systems would encompass space-based interceptors (as previously proposed in the Regan administration's infamous 'Star Wars' programme) that could be used to target objects on Earth or traversing through outer space (as intercontinental ballistic missiles do) and thereby undermine their nuclear deterrent.[50] They have therefore

[43]West and Vyse, 'Arms Control in Outer Space'.

[44]Weeden and Samson, 'Global Counterspace Capabilities'.

[45]Raymond Duvall and Jonathan Havercroft, 'Taking sovereignty out of this world: Space weapons and empire of the future', *Review of International Studies*, 34:4 (2008), pp. 755–75; Bruce M. DeBlois et al., 'Space weapons: Crossing the U.S. rubicon', *International Security*, 29:2 (2004), pp. 50–84.

[46]During the late 1970s, the United States and Soviet Union did reach a preliminary agreement to ban the use of their ASAT weapons out of concern for their destabilising effects. That nascent agreement was never concluded, however, as the Soviet invasion of Afghanistan in December 1979 and transition to the more hawkish administration of President Ronald Regan saw the US revert to a sceptical view of space arms control especially in light of its desire to develop space-based missile defence. Aaron Bateman, 'Mutually assured surveillance at risk: Anti-satellite weapons and Cold War arms control', *Journal of Strategic Studies* (2022), pp. 1–24.

[47]Notably, the US is one of only a handful of states to consistently abstain on, or vote against, the PAROS resolution and more recent associated resolutions.

[48]Nigeria, on behalf of member States of G21, 'Working Paper: Prevention of an Arms Race in Outer Space', Conference on Disarmament, Geneva (13 September 2011), paras 5 and 12, available at: {https://undocs.org/cd/1925}; Republic of Indonesia, 'Statement by H. E. Mohammad Koba, Ambassador/Deputy Permanent Representative of the Republic of Indonesia on Behalf of the Non-Aligned Movement', United Nations General Assembly First Committee, 75th Session, New York (9 October 2020), available at: {https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com20/statements/9Oct_NAM.pdf}.

[49]See fn. 37.

[50]Cheng Jingye, 'Treaties as an approach to reducing space vulnerabilities', in James Clay Moltz (ed.), *Future Security in Space: Commercial, Military, and Arms Control Trade-Offs*, Occasional Paper No. 10 (Monterey, CA and Southampton, UK: The Center for Nonproliferation Studies and Mountbatten Centre for International Studies, 2002), pp. 48–50; Vitaly A. Lukiantsev,

focused chiefly on prohibiting the placement of weapons *in space* and only secondarily on the regulation or elimination of other systems. While the US has not publicly resurrected space-based BMD plans, successive administrations have pursued newer and more comprehensive terrestrial BMD systems that would heavily rely on space-based sensors to detect incoming intercontinental ballistic missiles and have categorically rejected international calls to limit or eliminate these systems. Moreover, as the state most dependent on space-based technologies for military, economic, and societal services, the US (along with its allies) has instead argued that the primary threat to space security comes from existing ground-based technologies (especially ballistic missiles and increasingly advanced laser, electromagnetic, and cyber capabilities) that can be used to disrupt, disable, or destroy satellites.

While US opposition to binding constraints on military technologies in outer space and in terrestrial domains is widely noted, thus far there has been little scholarly attention to the nuances of strategies and tactics employed in international fora. Facing demands for additional legal restraints, US representatives have drawn on a range of mechanisms outlined in our antipreneurship model to forestall developments concerning both the *form and content* of governance mechanisms and *fora and format* in which they would be developed. Given the consensus decision rules of the CD and associated venues, the US could simply block progress on multilateral negotiations without any explanation. However, in keeping with our theoretical account, the social context and intersubjective demands of diplomacy serve to condition US responses by warranting justifications for their opposition.

Denying the problem: Rejecting a space arms race

During the early 2000s, key leaders in Washington were especially concerned about the vulnerability of critical US national space infrastructure to attack and began advancing new plans to gain strategic advantage.[51] Indeed, this era ushered in an era of 'renewed US space nationalism' that revived concerns for the security of space assets and an interest in developing offensive and defensive military space systems.[52] In 2001, President George W. Bush announced that the US would withdraw from the Anti-Ballistic Missile Treaty (ABM) in order to pursue the development of large-scale ballistic missile defences.[53] While the ABM withdrawal was rhetorically tied to the post-9/11 focus on terrorism and rogue states, the decision also signalled renewed US interest in space-based missile interceptors.[54]

In response, China and Russia, along with select partners, introduced a jointly authored working paper to the UN Conference on Disarmament in 2002 as the basis for a future multilateral treaty that would prohibit the placement of any weapons in orbit or on celestial objects, and 'the threat or use of force against outer space objects'.[55] The timing and framing of this initiative strongly

'Enhancing global security through improved space management: A Russian perspective', in Clay Moltz (ed.), *Future Security in Space*, pp. 44–7; Mikhail Lysenko, 'Curbing the Star Wars threat: A Russian view', *New Zealand International Review*, 31:3 (2006), pp. 10–13; West and Vyse, 'Arms Control in Outer Space', p. 16.

[51]The Commission to Assess United States National Security Space Management, 'Report of the Commission to Assess United States National Security, Space Management and Organization' (11 January 2001), p. 8, available at: {https://spp.fas.org/military/commission/report.htm}; Moltz, *The Politics of Space Security*, p. 274.

[52]Moltz, *The Politics of Space Security*, p. 259; Office of the President of the United States, 'U.S. National Space Policy' (31 August 2006), available at: {https://irp.fas.org/offdocs/nspd/space.html}.

[53]Office of the White House Press Secretary, 'ABM Treaty Fact Sheet: Announcement of Withdrawal from the ABM Treaty', Washington (13 December 2001), available at: {https://georgewbush-whitehouse.archives.gov/news/releases/2001/12/20011213-2.html}.

[54]The White House, 'National Security Presidential Directive/NSPD-23: National Policy on Ballistic Missile Defense' (16 December 2002), p. 4, available at: {https://aerospace.org/sites/default/files/policy_archives/NSPD-23%20BMD%20Policy%20Dec02.pdf}.

[55]People's Republic of China et al., 'Working Paper: Possible Elements for a Future International Legal Agreement on the Prevention of the Deployment of Weapons in Outer Space, the Threat or Use of Force Against Outer Space Objects', Conference on Disarmament (28 June 2002), p. 3, available at: {https://undocs.org/CD/1679}; Jeffrey S. Lantis, 'To boldly go where no

suggests that China and Russia were chiefly motivated by growing concern for US ballistic missile defence systems, which might in future include a space-based component.[56] The proposal explicitly mentioned weapons stationed in space and not ground-based systems, though its proponents would subsequently claim that terrestrial ASAT are covered via the prohibition on the threat or use of force. Significantly, the 2002 working paper asserted that existing international legal restraints were 'unable to effectively prevent the deployment of weapons and an arms race in outer space'.[57] Soon after, the Russian Federation announced a unilateral pledge 'not to be the first to deploy offensive strike weapons in outer space'.[58]

In response, the Bush administration employed a range of interlayered antipreneurship strategies and tactics in an attempt to divert international attention away from expressed concerns about a space 'arms race'. US officials practiced rhetorical entrepreneurship by simply rejecting outright the fundamental premise of the Chinese-Russian initiative that the dual trends of renewed US ballistic missile defence development and expanding military space technologies imperilled outer space security and demanded new institutional responses.[59] Specifically, the US repeatedly reiterated its commitment to the continued peaceful uses of outer space (which does not preclude the use of space systems to support terrestrial national security) and emphasised that it had no intentions of developing offensive space weapons. From the US perspective, there was no existing arms race in outer space, nor was there a significant risk of one emerging, despite continuing advancements in military space technologies. Moreover, additional legal restraints were unnecessary because existing international law already contained sufficient legal restrictions on the use of force against space. Consequently, they asserted, '[t]here is simply no problem in outer space for arms control to solve.'[60]

As anticipated in our theoretical model, US officials bolstered their rhetorical antipreneurship with additional procedural antipreneurship tactics designed to keep space arms control proposals off the formal diplomatic agenda. As part of an initiative to improve the CD's operations, US diplomats successfully pressured fellow delegations to accept a compromise program of work that elevated consideration of a prospective Fissile Material Cut-off Treaty (FMCT, the top US priority in the CD) and reduced PAROS to a topic of discussion without a negotiation mandate.[61] This episode nicely illustrates the deliberate weaving of rhetorical and procedural antipreneurship tactics as the US successfully initiated a framing contest concerning the urgency and practicality of competing initiatives (FMCT vs PAROS) and, more broadly, the most effective means of rejuvenating stalled multilateralism at the CD. China and Russia expressed disappointment in this outcome

country has gone before: U.S. norm antipreneurism and the weaponization of outer space', in Bloomfield and Scott (eds), *Norm Antipreneurs and the Politics of Resistance to Global Normative Change*, pp. 208–9.

[56]Meyer, *Ballistic Missile Defence*, p. 15. See also fn. 37.

[57]People's Republic of China et al., 'Possible Elements for a Future International Legal Agreement', p. 2.

[58]Vladimir V. Putin, 'Statement by H. E. Mr. Vladimir V. Putin, President of the Russian Federation' (General Debate of the United Nations General Assembly, 58th Session, New York (25 September 2003), available at: {https://www.un.org/webcast/ga/58/statements/russeng030925.htm}.

[59]Eric M. Javits, 'Letter Dated 26 June 2002 from the Permanent Representative of the United States of America to the Conference on Disarmament Addressed to the Secretary-General of the Conference Transmitting the Text of His Remarks on Outer Space During the Informal Conference on "Future Security in Space: Commercial, Military, and Arms Control Trade-Offs" Sponsored by the Monterey Institute's Center for Nonproliferation Studies and the University of Southampton's Mountbatten Center on 29 May 2002', Conference on Disarmament (10 July 2002), available at: {https://undocs.org/CD/1680}; United States of America, 'Statement by Mr. Mohanco', Conference on Disarmament, One Thousand and Twenty-Fifth Plenary Meeting, Geneva (13 June 2006), available at: {https://undocs.org/CD/PV.1025}; United States of America, 'Explanation of Vote', United Nations General Assembly First Committee, New York (26 October 2006), available at: {https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com06/EOV/L.10US.pdf}.

[60]Javits, 'Letter Dated 26 June 2002', p. 4.

[61]Conference on Disarmament, 'Initiative of the Ambassadors Dembri, Lint, Reyes, Salander and Vega' (Geneva: Conference on Disarmament, 5 September 2003), available at: {https://undocs.org/cd/1693/Rev.1}.

but accepted the compromise with the expectation that, in the words of a Russian diplomat, their 'flexibility to be displayed in return'.[62]

However, while US manoeuvres denied advocates a diplomatic mandate, obstructionism did not succeed in ending entrepreneurial efforts altogether. Rather, early setbacks stimulated progressively more detailed proposals from China and Russia in a series of working papers (2004–06) that explored specific aspects of their proposed ban on the placement of weapons in space.[63] Thus, initial antipreneurial success set the stage for renewed norm competition.

Disputing the 'solution': Critiquing the PPWT

Just as earlier US missile defence plans had stimulated international interest in space arms control, renewed testing of anti-satellite capabilities precipitated a new stage of norm competition. In January 2007, China successfully destroyed one of its own satellites with a ground-based ballistic missile, creating over 3,500 pieces of trackable debris in the process – the largest known debris-generating event to date and the first destructive ASAT test for 21 years.[64] The event elicited a flurry of international condemnation, including from the US, which specifically emphasised the creation of long-lasting orbital debris and a lack of transparency.[65] Yet in February 2008, the US shot down USA-193, a defunct spy satellite, using a ship-based SM-3 anti-ballistic missile interceptor. Interestingly, even though many analysts interpreted this as a conscious demonstration of US capabilities, US diplomatic statements consistently denied that this constituted an ASAT weapons programme and instead described the interception as a one-off protective measure to ensure that highly toxic hydrazine fuel onboard the faulty satellite would not return to Earth and endanger human populations or the environment.[66] We do not interpret the destruction of USA-193 as a deliberate attempt to prevent norm emergence via a transgressive act – behavioural antipreneurship – because the action lacked any public rhetorical linkage to stated US objections to space arms control. Nevertheless, the events of 2007 and 2008 generated a renewed sense of crisis in space security and further impetus for space arms control.

Only weeks after the US destruction of USA-193, Chinese and Russian diplomats again adopted the role of norm entrepreneurs by introducing the first draft Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects (PPWT) at the CD.[67] This document consolidated the issues articulated in previous working papers and represents an inflection point in norm competition. At this point, US rhetorical antipreneurship notably shifted from rejecting the principled need for space arms control to disputing the proposed solution embodied in legally binding limits on specific technologies. The Bush administration responded with a detailed analysis (submitted to the CD) that outlined a series of substantive objections to the specific features of the draft PPWT, with concerns about its

[62]Russian Federation, 'Statement by Ambassador Skotnikov', Conference on Disarmament, Nine Hundred and Eighty-Fourth Plenary Meeting, Geneva (9 June 2005), available at: {https://undocs.org/CD/PV.984}.

[63]CD/PV.966 (26 August 2004) and CD/1778, CD/1779, CD/1780, and CD/1781 (22 May 2006), available at: {https://www.un.org/disarmament/publications/library/conference-on-disarmament}.

[64]Brian Weeden, '2007 Chinese Anti-Satellite Test Fact Sheet', Secure World Foundation (23 November 2010), available at: {https://swfound.org/media/205391/chinese_asat_fact_sheet_updated_2012.pdf}. Chinese officials denied that the test represented a hostile or threatening act. People's Republic of China, 'Statement by Mr Cheng', Conference on Disarmament, One Thousand and Fifty-Second Plenary Meeting, Geneva (13 February 2007), p. 32, available at: {https://undocs.org/CD/PV.1052}.

[65]United States of America, 'Statement by Ms. Rocca', Conference on Disarmament, One Thousand and Fifty-Second Plenary Meeting, Geneva (13 February 2007), p. 23, available at: {https://undocs.org/CD/PV.1052}; Moltz, *The Politics of Space Security*, pp. 275–8.

[66]United States of America, 'Statement by Ms. Rocca', Conference on Disarmament, One Thousand and Ninety-First Plenary Meeting, Geneva (15 February 2008), available at: {https://undocs.org/CD/PV.1091}; Nicholas L. Johnson, 'Operation Burnt Frost: A view from inside', *Space Policy*, 56 (2021).

[67]Russian Federation and People's Republic of China, 'Draft Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects', Conference on Disarmament (29 February 2008), available at: {https://undocs.org/en/CD/1839}.

scope and prospective implementation, respectively.[68] These complaints were further articulated in subsequent diplomatic statements and have endured up to the present day despite changes in administration.

First, the US argued that the proposed text failed to adequately define a 'space weapon', which the analysis contended was impossible due to the plethora of dual-use technologies and increasing entwinement of national security and commercial space operations. As such, the US asserted that an arms control or disarmament model was fundamentally unsuited to the technical realities of outer space. Second, in its emphasis on the placement of weapons in space, the US maintained that the PPWT ignored terrestrial anti-satellite systems – including direct-ascent missiles like those tested in 2007 and 2008, along with other capabilities like high-powered lasers, jamming, and cyberattacks – that pose the most urgent threat to satellites and their ground control systems.[69] Rather, the US analysis suggested that the PPWT was deliberately structured to encompass space-based missile defence systems that only the US was allegedly seeking while permitting capabilities being developed by China and Russia (among others).[70] Third, even the limited focus on space-based technologies was inadequate since the instrument did not ban 'research, development, production, and terrestrial storage' or the testing of such systems provided they did not take place in Earth orbit.[71] Fourth, the US contended that the PPWT did not clarify the relationship between a prohibition on 'threats or use of force' and the acknowledged right of self-defence as guaranteed in the UN Charter.[72]

At the same time, the US questioned the approach to implementation enshrined in the PPWT through a further layering of rhetorical and procedural tactics. On the one hand, the US officials criticised the draft treaty for failing to include binding verification measures, which the US in any case characterised as 'unrealistic' due to technical limitations.[73] On the other hand, the US also rejected proposals from the PPWT's authors to negotiate verification measures in a subsequent diplomatic process and create an 'Executive Organization' of PPWT member states that would manage compliance and enforcement – in the latter case suggesting that this approach was incompatible with existing arms control and disarmament institutions and would undermine the UN Security Council's role as the ultimate arbiter of international peace and security.[74] In light of these numerous complaints, US officials concluded that the draft PPWT provided no grounds for the US to revise its long-held position that legally binding space arms control is not 'in the national security interests on the United States' and was not a suitable candidate for formal negotiation at the CD.[75] However, from this point on the US approach shifted from detailed critique to strategic ambiguity in an attempt to further slow potential diplomatic progress. The Bush administration ended with no presentation of alternative proposals in response to the PPWT.

The start of the Obama administration marked a conscious – and widely recognised – shift in foreign policy tone.[76] For example, the 2010 National Space Policy moderated the Bush administration's focus on military space objectives, instead emphasising US leadership in developing collaborative responses to space security and sustainability and 'promot[ing] safe and

[68]United States of America, 'Analysis of a Draft "Treaty on Prevention of the Placement of Weapons in Outer Space, or the Threat or Use of Force Against Outer Space Objects"', Conference on Disarmament (26 August 2008), available at: {https://undocs.org/CD/1847}.

[69]Ibid., paras 9, 12, 13.

[70]Ibid., para. 8(i).

[71]Ibid., paras 8(ii) and 25.

[72]Ibid., para. 6.

[73]Ibid., paras 18–19.

[74]Ibid., paras 14–16, 26.

[75]Ibid., para. 22.

[76]United States of America, 'Statement by Mr. Rose', Conference on Disarmament, One Thousand One Hundred and Ninetieth Plenary Meeting, Geneva (13 July 2010), available at: {https://undocs.org/CD/PV.1190}.

responsible operations in space'.[77] The new administration discarded its predecessor's denial tactic and shifted instead to recognise growing governance challenges, captured in the oft-quoted phrase that 'space is increasingly congested, contested, and competitive.'[78] It is notable that after 2008, the previous insistence that 'there is no arms race in space'[79] was abandoned and never resurrected.

Nevertheless, the Obama administration maintained its predecessor's scepticism towards binding restraints and retained many rhetorical and procedural tactics already developed by US diplomats. US officials made clear that they would 'consider proposals and concepts for arms control measures if they are equitable, effectively verifiable, and enhance the national security of the United States and its allies'[80] but continued to insist that no existing proposals met these stringent conditions, reflecting a tactical mix of pragmatic ambiguity and framing battles.[81] The Obama administration also continued its predecessor's approach of supplementing rhetorical antipreneurship with procedural delaying tactics by again only permitting PAROS to be included on the CD agenda as a discussion topic without the prospect of formal negotiations.[82] China and Russia decried US obstructionism but notably declined to pursue the initiative outside the CD owing to their own desire to maintain the veto prerogative afforded by the CD's consensus decision-making procedures. In this respect, both entrepreneurs and antipreneur consciously avoided forum shifts in order to preserve their structural advantages in international diplomacy.

In 2014 China and Russia introduced an updated version of the draft PPWT which the US soon rejected.[83] This process reveals the competitive and interactive nature of norm competition: PPWT authors engaged in substantive discussions and released detailed responses to critiques from the US and other states concerning the 2008 and 2014 drafts which in turn elicited further US replies.[84] Interestingly, these documents acknowledged many core US complaints concerning the scope of the proposed treaty and its verification, suggesting that these issues could be resolved via further negotiation. However, consistent with our antipreneurship framework, these concessions did not alter US opposition, nor did they lead to more constructive engagement: US assessments of the PPWT remained unchanged and officials maintained their strategic ambiguity by declining

[77]Office of the President of the United States, 'National Space Policy of the United States of America' (28 June 2010), p. 4, available at: {https://www.nasa.gov/sites/default/files/national_space_policy_6-28-10.pdf}.

[78]Office of the Director of National Intelligence, United States of America, 'National Security Space Strategy –Unclassified Summary' (Washington, DC: Director of National Intelligence, January 2011), p. i, available at: {https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/2011_nationalsecurityspacestrategy.pdf}.

[79]United States of America, 'Statement by Ms. Rocca' (13 February 2007), p. 24.

[80]Office of the President of the United States, 'National Space Policy 2010', p. 7. This phrase reappears regularly in official statements to the CD and UNGA during the Obama administration.

[81]United States of America, 'Statement by Mr. Rose', Conference on Disarmament, One Thousand Three Hundred and Nineteenth Plenary Meeting, Geneva (10 June 2014), p. 5, available at: {https://undocs.org/cd/PV.1319}.

[82]United States of America, 'Statement by Mr. Rose' (13 July 2010), p. 8.

[83]Russian Federation and People's Republic of China, 'Draft Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects', Conference on Disarmament (12 June 2014), available at: {https://undocs.org/en/CD/1985}; United States of America, 'Analysis of the 2014 Russian-Chinese Draft "Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects" (PPWT) (CD/1985)', Conference on Disarmament (3 September 2014), available at: {https://undocs.org/CD/1998}.

[84]People's Republic of China and Russian Federation, 'Principal Questions and Comments on the Draft Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force against Outer Space Objects, and the Answers Thereto', Conference on Disarmament (18 August 2009), available at: {https://undocs.org/CD/1872}; People's Republic of China and Russian Federation, 'Follow-up Comments by the Russian Federation and China on the Analysis Submitted by the United States of America of the Updated Russian-Chinese Draft PPWT', Conference on Disarmament (14 September 2015), available at: {https://undocs.org/en/CD/2042}; United States of America, 'Response by the United States of America to "Follow-up Comments by the Russian Federation and the People's Republic of China on the Analysis Submitted by the United States of America of the Updated Russian-Chinese Draft PPWT" (CD/2042)', Conference on Disarmament (16 August 2018), available at: {https://undocs.org/CD/2129}.

to offer any substantive suggestions for alterations that would address US concerns and enhance the prospects of compromise.[85]

Defensive concessions through voluntary measures

While the US succeeded in preventing the PPWT's advancement at the CD , the initiative nevertheless continued to enjoy broad support. In an effort to blunt this diplomatic momentum, US officials adapted their approach through behavioural antipreneurship by cautiously supporting the idea of developing voluntary transparency and confidence-building measures (TCBM) as an alternative model for space security governance. This new level of engagement emerged in the final years of the Bush administration[86] and became increasingly prominent over the Obama,[87] Trump,[88] and Biden[89] administrations. In this respect, the US began to exert modest agency in shaping the normative landscape.[90]

However, what might appear at first glance as a softening of US resistance or adoption of a proactive entrepreneurial role is better characterised through our antipreneurship lens as a consciously defensive manoeuvre designed to co-opt the diplomatic agenda. The US practice of engagement on space governance reflects a form of behavioural antipreneurship to preserve the existing legal architecture by redirecting international discussions away from initiatives the US opposed in favour of more modest objectives. US officials thus increasingly characterised the gradual extension of norms through TCBM as a 'near-term' and 'pragmatic' response to changing conditions in space, in contrast to what they deemed the 'futile', 'flawed', and 'pointless and hypocritical' legally binding model embodied in the PPWT.[91]

As in other episodes highlighted above, US diplomacy was multilayered and was advanced through series of rhetorical and procedural tactics that further illustrate the strategic intermingling of modes of resistance and the interactive nature of norm competition. US officials undertook a series of rhetorical manoeuvres to decouple their nascent support for voluntary TCBM from the Chinese-Russian PPWT and NFP proposals. Even before the submission of the first PPWT draft, Chinese and Russian officials had sought to build support for their proposed legally binding treaty by linking it to emerging discussions surrounding TCBM.[92] US diplomats began to regularly and explicitly reject any conflation between the PPWT and TCBM and insisted that these be treated as distinct diplomatic approaches.[93] The Bush administration voted against a draft resolution on TCBM from 2005–08, but the US then shifted to abstention (2009 and 2010) and voted in favour (2011–17) as the Obama administration sought to engage more proactively. However, the Trump

[85]United States of America, 'Statement by Mr. Wood', Conference on Disarmament, One Thousand Three Hundred and Forty-Ninth Plenary Meeting, Geneva (9 March 2015), available at: {https://undocs.org/cd/pv.1349}.

[86]United States of America, 'Analysis of a Draft', para. 20(i-iii); United States of America, 'Explanation of Vote: Draft Resolution L.44L General and Complete Disarmament: Transparency and Confidence-Building Measures in Outer Space Activities', United Nations General Assembly First Committee, New York (31 October 2008), available at: {https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com08/EOV/USL44Rev1.pdf}.

[87]Office of the President of the United States, 'National Space Policy 2010', p. 7.

[88]United States of America, 'Statement by Mr. Eberhardt', United Nations General Assembly First Committee, Seventy-Second Session, Sixteenth Meeting, New York (17 October 2017), available at: {https://undocs.org/A/C.1/72/PV.16}.

[89]Antony J. Blinken, 'Secretary Blinken: Remarks at the High-Level Segment of the Conference on Disarmament', High-Level Segment of the Conference on Disarmament, Geneva (22 February 2021), available at: {https://geneva.usmission.gov/2021/02/22/secretary-blinken-cd/}.

[90]Bloomfield, 'Norm antipreneurs', p. 331.

[91]United States of America, 'Explanation of Vote: Draft Resolution L.44L General and Complete Disarmament: Transparency and Confidence-Building Measures in Outer Space Activities'; United States of America, 'Statement by Mr. Wood', United Nations General Assembly First Committee, 70th Session, 15th Meeting, New York (23 October 2015), available at: {https://undocs.org/A/C.1/70/PV.15}; United States of America, 'Statement by Mr. Eberhardt'.

[92]People's Republic of China and Russian Federation, 'Working Paper: Transparency and Confidence-Building Measures in Outer Space Activities and the Prevention of Placement of Weapons in Outer Space', Conference on Disarmament (22 May 2006), available at: {https://undocs.org/CD/1778}.

[93]United States of America, 'Analysis of a Draft', para. 20(ii); United States of America, 'Statement by Mr. Mohanco', pp. 20–2.

administration returned to casting negative votes from 2018–20 due to what it saw as 'unacceptable linkage[s] between proposals for voluntary, pragmatic transparency and confidence-building measures and the commencement of futile negotiations on fundamentally flawed arms-control proposals.'[94]

In parallel, the US leveraged its position in other key diplomatic fora to weaken linkages between voluntary TCBM and binding restraints proposed by China and Russia. For example, US diplomats sought to block discussion of TCBM at the CD by insisting that, as the chief multilateral forum for negotiating arms control and disarmament agreements, the CD was 'not the appropriate venue' for discussions regarding non-binding norms.[95] In the second Obama term, US diplomats began to institutionalise their interest in voluntary norms by collaborating with China and Russia to support the creation of a Group of Governmental Experts (GGE) on TCBM and a proposal to add TCBM to the Disarmament Commission's agenda for the 2015–17 cycle.[96] The Obama administration also offered positive but non-committal support for a European Union-led draft International Code of Conduct for Outer Space Activities (ICoC).[97] Yet these tentative steps still reflected an enduring caution against excessively ambitious restraints: the US ultimately declined to formally join the ICoC in the face of mounting opposition from states in the Global South and because, in the words of one senior US diplomat, the initiative was still 'too restrictive'.[98] Hence, here, too, US officials utilised ambiguity to slow the process by failing to articulate their concerns or propose specific content for acceptable TCBM.

The Trump administration's confrontational approach marked a return to a more nationalistic orientation of the Bush administration, as the 2018 National Space Strategy advanced a vision of US 'space preeminence' that 'prioritizes American interests first and foremost'.[99] The enhanced profile of military space operations was reflected in the creation of the US Space Force and re-establishment of Space Command and the new characterisation of outer space as 'a warfighting domain' – developments that US leaders positioned as responses to Chinese and Russian activities aimed at ensuring 'unfettered access to, and freedom to operate in, space'.[100] However, it is notable that the administration also signalled its support for cooperative initiatives between governments, space agencies, and commercial operators in areas of space exploration and resource exploitation, as notably advanced in the Artemis Accords.[101]

[94]United States of America, 'Statement by Mr. Bravaco', United Nations General Assembly First Committee, Seventy-Fourth Session, Twenty-Fourth Meeting, Geneva (5 November 2019), p. 7, available at: {https://undocs.org/A/C.1/74/PV.24}. Relatedly, US diplomats consistently voted against an annual UNGA resolution on 'No first placement of weapons in outer space' first introduced by Russia in 2014, on the grounds that the initiative replicates the fundamental flaws of the PPWT and does not meet the criteria of a TCBM as established in the 2013 GGE report. United States of America, 'Statement by Mr. Rose' (10 June 2014), pp. 5–7; United States of America, 'Statement by Ms. Plath', United Nations General Assembly First Committee, 73rd Session, 28th Meeting, New York (5 November 2018), available at: {https://undocs.org/A/C.1/73/PV.28}.

[95]United States of America, 'Statement by Mr. Mohanco', p. 20.

[96]United Nations General Assembly, 'Report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities' (New York, NY: United Nations, 29 July 2013), available at: {https://undocs.org/A/68/189}.

[97]European External Action Service, 'International Code of Conduct for Outer Space Activities – Version 31 March 2014', European External Action Service (31 March 2014), available at: {https://eeas.europa.eu/headquarters/headquarters-homepage/14715/eu-proposal-international-space-code-conduct-draft_en}.

[98]Marcus Weisgerber, 'U.S. Wants Changes to EU Space Code of Conduct', SpaceNews (12 January 2012), available at: {https://spacenews.com/18667us-wants-changes-to-eu-space-code-of-conduct/}.

[99]The White House, 'President Donald J. Trump Is Unveiling an America First National Space Strategy', The White House Office of the Press Secretary (23 March 2018), available at: {https://trumpwhitehouse.archives.gov/briefings-statements/president-donald-j-trump-unveiling-america-first-national-space-strategy/}.

[100]President of the United States of America, 'Space Policy Directive-4: Establishment of the United States Space Force', The White House (19 February 2019), available at: {https://aerospace.csis.org/wp-content/uploads/2019/02/Space-Policy-Directive-4-Space-Force-19Feb19.pdf}; The White House, 'America First National Space Strategy'.

[101]NASA, 'The Artemis Accords', available at: {https://www.nasa.gov/specials/artemis-accords/index.html}.

Interestingly, the Trump administration extended the Obama era support for voluntary TCBM, which US officials now described as an 'urgent need'.[102] Yet US diplomats continued to employ forms of rhetorical and procedural antipreneurship designed to defend US interests in the status quo and impede Chinese-Russian efforts to secure negotiations on a legally binding instrument. While both the Bush and Obama administrations had criticised Chinese and Russian development of ASAT capabilities, the Trump administration more explicitly deployed these complaints to attack the legitimacy of the PPWT and NFP initiatives and, by extension, the sincerity of their chief proponents. As a US delegate to the CD explained, the expansion of ground-based and space-based ASAT by China and Russia demonstrated that they 'believe it is currently acceptable to attack satellites in orbit from the ground, whether through directed energy or missile strikes … [W]e must conclude that the countries professing to support efforts to prevent an arms race in outer space have hypocritically and cynically decided to proceed with the development of ground-based anti-satellite weapons anyway.'[103] As a further tactical innovation, US officials linked alleged Russian non-compliance with other international arms control and disarmament agreements to cast doubt on its trustworthiness.[104]

At the same time, the US voted against a new resolution, first introduced by China and Russia in 2017, which created a Group of Governmental Experts (GGE) with a mandate to examine and recommend elements of an 'international legally binding instrument on the prevention of an arms race in outer space, including, inter alia, on the prevention of the placement of weapons in outer space'.[105] While the US ultimately participated in the GGE, it blocked the final consensus report, reportedly due to objections concerning the use of the PPWT as a basis for discussion.[106] In 2019, the US co-sponsored an alternative draft UNGA resolution on TCBM that omitted references to the nascent PPWT; this document was withdrawn before a vote in the face of opposition from the traditional sponsors of the TCBM resolution (which prominently includes China and Russia).[107]

In its last days, the administration gave its backing to a new initiative by the United Kingdom, formalised in UNGA Resolution 76/36, to develop non-binding norms of responsible behaviour to address security threats in outer space.[108] The resolution, and the process it initiated, is notable for two reasons. First, echoing earlier moves during the Bush administration, it reflects a deliberate procedural tactic to keep discussion focused on 'security' matters that are the prerogative of the UNGA First Committee and Conference on Disarmament, rather than 'sustainability' or 'safety' that are addressed at the UNGA Fourth Committee and COPUOS. Second, the resolution emphasises behaviours rather than technologies and thus seeks to move away from the definitional issues concerning space weapons that have consistently bedevilled the PPWT debates.

[102]United States of America, 'Statement by Mr. Wood', Conference on Disarmament, One Thousand Five Hundred and Forty-First Plenary Meeting, Geneva (30 June 2020), p. 18, available at: {https://undocs.org/cd/PV.1541}.

[103]United States of America, 'Statement by Mr. Wood', Conference on Disarmament, One Thousand Five Hundred and Seventeenth Plenary Meeting, Geneva (14 August 2019), p. 23, available at: {https://undocs.org/cd/PV.1517}.

[104]United States of America, 'Statement by Ms. Poblete', Conference on Disarmament, One Thousand Four Hundred and Sixty-Fifth Plenary Meeting, Geneva (14 August 2018), p. 4, available at: {https://undocs.org/cd/PV.1465}; United States of America, 'Statement by Mr. Wood' (30 June 2020), p. 18.

[105]United Nations General Assembly, 'Further Practical Measures for the Prevention of an Arms Race in Outer Space', A/RES/72/250 (2017), para. 3, available at: {https://undocs.org/en/A/RES/72/250}.

[106]United States of America, 'Statement by Mr. Desautels', United Nations General Assembly First Committee, Seventy-Fourth Session, Eighteenth Meeting, New York (29 October 2019), p. 16, available at: {https://undocs.org/A/C.1/74/PV.18}; United States of America, 'Statement by Mr. Bravaco', p. 8; Brian Weeden, 'Testimony before the U.S.-China Economic and Security Review Commission', pp. 14–15, available at: {https://www.uscc.gov/sites/default/files/Brian%20Weeden%20USCC%2025%20April.pdf}.

[107]A/C.1/74/L.55/Rev.1, available at: {https://documents-dds-ny.un.org/doc/UNDOC/LTD/N19/348/13/PDF/N1934813.pdf?OpenElement}; United States of America, 'Statement by Mr. Desautels'; United States of America, 'Statement by Mr. Bravaco', p. 6.

[108]United Nations General Assembly, 'Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours', A/RES/75/36 (2020), available at: {https://undocs.org/en/A/RES/75/36}.

Notably, there is also ample evidence of continuity in the early Biden administration (2021–present). Like Obama, Biden began his tenure with a pointed commitment to renewed multilateral cooperation including the promotion of norms of responsible space behaviour.[109] However, US officials have also retained most space policies and antipreneurial forms developed during preceding administrations. The new administration has articulated the same fundamental critiques of the PPWT and NFP proposals and repeated concerns regarding Chinese and Russian ASAT development – most notably Russia's kinetic-kill ASAT test in November 2021 – and questioned their commitment to space arms control proposals.[110] At the same time, it has amplified US endorsement of TCBM as a replacement for binding legal restraints and thus sought to further undermine the future prospects of the PPWT. The US pointedly supported a United Kingdom-led effort to create an open-ended working group (OEWG) to examine and '[m]ake recommendations on possible norms, rules and principles of responsible behaviours relating to threats by States to space systems'.[111] However, consistent with past patterns of rhetorical and procedural antipreneurship, the US insisted that the OEWG operate by consensus decision rules, thus preserving its ability to block specific recommendations concerning, for instance, the potential initiation of negotiations on a legally binding treaty.

Finally, recent developments may suggest a further shift in US policy from tentative to proactive advocate of novel space norms. In July 2021, the Department of Defense issued its first official statement endorsing principles of 'responsible behavior in space'.[112] In April 2022, the US announced a unilateral moratorium on the testing of destructive kinetic direct-ascent anti-satellite weapons, which it connected to its objectives for US leadership in developing new voluntary norms to enhance space security at the OEWG and beyond.[113] While representing the first concrete US policy proposal, this announcement reflects a modest step (since the US had not conducted a test of this kind since 2008) and was consciously designed to direct and limit the scope of future diplomacy by emphasising voluntary measures instead of the PPWT.

Conclusion

This study has demonstrated how the leading space power successfully opposed international norm change that it regarded as contrary to its core security interests. In doing so, it reveals the specific processes through which resistance is enacted and thus provides greater analytical nuance concerning both the intentions and dynamics of antipreneurial agency. Our attention to the modulated use of distinctive strategies and tactics, oriented around critical defining moments, helps to account for both continuity and variation in US space policy and the deliberate and calculated nature of antipreneurship as a strategic social process. As we show, the US has maintained consistent opposition to space arms control proposals despite changes in external and domestic conditions. Yet successive presidential administrations also adopted different tactics in response to shifting

[109]Joseph Biden, 'Remarks by President Biden on America's Place in the World', White House, Office of the Press Secretary (4 February 2021), available at: {https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/02/04/remarks-by-president-biden-on-americas-place-in-the-world/}.

[110]US Mission to International Organizations Geneva, 'Remarks by Ambassador Wood on the Prevention of an Arms Race in Outer Space', Conference on Disarmament, Geneva (1 June 2021), available at: {https://geneva.usmission.gov/2021/06/01/remarks-by-ambassador-wood-for-the-session-on-the-prevention-of-an-arms-race-in-outer-space/}; Antony J. Blinken, 'Russia Conducts Destructive Anti-Satellite Missile Test', Office of the Spokesperson, United States Department of State (15 November 2021), available at: {https://www.state.gov/russia-conducts-destructive-anti-satellite-missile-test/}.

[111]United Nations General Assembly, 'Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours', A/RES/76/231 (2021), para. 5(c), available at: {https://undocs.org/en/A/RES/76/231}.

[112]Secretary of Defense, United States of America, 'Tenets of Responsible Behavior in Space', United States Department of Defense (7 July 2021), available at: {https://media.defense.gov/2021/Jul/23/2002809598/-1/-1/0/TENETS-OF-RESPONSIBLE-BEHAVIOR-IN-SPACE.PDF}.

[113]The White House, 'Fact Sheet: Vice President Harris Advances National Security Norms in Space' (18 April 2022), available at: {https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/18/fact-sheet-vice-president-harris-advances-national-security-norms-in-space/}.

entrepreneurial efforts and informed by their own political ideology, perception of interests, and changing global political and technological constraints.

Moreover, as with all forms of norm competition, antipreneurship exists as in a dialectic relationship with entrepreneurship and is thus inherently iterative and interactive. As the authors of the main ban proposals, China and Russia responded to US objections and offered some limited concessions. Yet these engagements did not spur further negotiations or moderate US complaints; antipreneurship has been employed as a shield rather than an enabler of compromise. In short, our account of antipreneurship explains how the US has sought to resist what it perceives as unwelcome diplomatic initiatives in a key area of twenty-first-century global security.

Our antipreneurship theory also better accounts for the observed behaviour of major space-faring nations than prominent alternative explanations. While contestation similarly involves competition over the content and application of norms, the evidence demonstrates that the US consistently worked to prevent major changes in the normative architecture rather than seeking to clarify, modify, or replace the dominant standards. Similarly, while it might appear on the surface that the US government was merely playing power politics in space, our study helps explain the puzzling nature of its behaviour to work within existing institutional restraints and diplomatic discourses rather than to simply ignore them. We show how the US has sought to leverage these resources to preserve the existing permissive international legal framework governing military space operations. We conclude that savvy antipreneurs know exactly what they are doing: their goals are neither to 'grow' nor 'kill' norms but rather to sustain status quo norms as mechanisms that allow them the greatest strategic latitude within an international order.

Finally, we expect that this theory will have many applications beyond the present case study. For example, space security governance provides an archetypal example of broader US scepticism concerning legal restraints on military technologies. The present findings thus establish conditions for conducting comparative research on patterns of norm resistance that systematically examines other diplomatic initiatives where the US has challenged the creation of new restraints with varying degrees of success (compare for example autonomous weapons systems and nuclear weapons with antipersonnel mines and cluster munitions). There are also important lessons here for the study of how US hegemony interacts with norms and governance across other issue areas, ranging from US defense of the status quo of the UN Security Council system in opposing the International Criminal Court to resistance of other innovations such as the Convention on the Elimination of All Forms of Discrimination Against Women and the UN Convention on the Rights of the Child.[114] These examples point to the importance of further contextualising the role of antipreneurship within the wider study of norm collisions, fragmentation, and contestation.

Further studies could also examine agency by other actors to evaluate the impact of varying material and social power capabilities on antipreneurship processes and outcomes. A related question would be whether political regime type – especially comparisons between liberal democracies and authoritarian systems – shape the uses and impact of antipreneurship. In addition, since institutional forms shape entrepreneurship and antipreneurship, future research could trace these dynamics in different diplomatic fora. Notably, variation in membership (inclusive versus more restrictive) and decision rules (majoritarian versus consensus) will presumably influence both the selection and timing of antipreneurship strategies and tactics, as well as the prospects for effective resistance. Hence, the present study speaks to topics of enduring scholarly and practitioner concern and offers grounds for further refining our understanding of norm competition in multiple forms and domains.

[114] Jason Ralph, *Defending the Society of States: Why America Opposes the International Criminal Court and its Vision of World Society* (Oxford, UK: Oxford University Press, 2007); Holzscheiter, Gholiagha, and Liese, 'Advocacy coalition constellations and norm collisions'; Lainie Rutkow and Joshua T. Lozman, 'Suffer the children: A call for United States ratification of the United Nations Convention on the Rights of the Child', *Harvard Human Rights Journal*, 19 (2006), pp. 161–212

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Adam Bower is Senior Lecturer (Associate Professor) in International Relations at the University of St Andrews where he co-directs the Centre for Global Law and Governance and sits on the Steering Committee of the Institute for Legal and Constitutional Research. His research interests include IR theory (especially the intersection of norms and strategic action), the regulation of armed violence, disarmament, and outer space security. Bower is a member of the Centre for Exoplanet Science at the University of St Andrews and a fellow of the Outer Space Institute, a global network of transdisciplinary experts committed to promoting safe and sustainable space operations. Author's email: asb20@st-andrews.ac.uk

Jeffrey S. Lantis is Professor of Political Science at The College of Wooster. His research specialisations include foreign policy analysis, emerging technologies and international security, international norm contestation theory, and the scholarship of teaching and learning. Lantis is co-editor of the journal *International Studies Perspectives* and a former Fulbright Senior Scholar at the Australian National University. He is the author and editor of recent books, including *Pandemic Pedagogy: From Triage to Transformation in Political Science Education* (2022), *Foreign Policy Advocacy and Entrepreneurship* (2019), and *Arms and Influence: US Technology Innovations and the Evolution of International Security Norms* (2016). Author's email: jlantis@wooster.edu

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